

### Amendments to the Claims

1. (Currently Amended) A cooling device ~~(1)~~ for a fuel-recirculation circuit from the injection system to the tank of a motor vehicle, comprising a pipe ~~(2)~~ designed to be traversed by the fuel and comprising a side wall ~~(5)~~, characterized in that said side wall ~~(5)~~ has at least one internal projection ~~(7)~~ obtained by plastic deformation of said side wall ~~(5)~~ and in that said cooling device ~~(1)~~ does not comprise a radiating plate connected in a direct thermal exchange manner to said pipe ~~(2)~~.

2. (Currently Amended) The cooling device according to Claim 1, characterized in that said pipe ~~(2)~~ is coiled.

3. (Currently Amended) The cooling device according to Claim 2, characterized in that said coiled pipe ~~(2)~~ comprises an alternating succession of elbows ~~(3)~~ and rectilinear stretches ~~(4)~~.

4. (Currently Amended) The cooling device according to Claim 2 ~~or Claim 3~~, characterized in that it comprises a plurality of said projections ~~(7)~~.

5. (Currently Amended) The cooling device according to Claim 4, characterized in that said projections ~~(7)~~ are made on said rectilinear stretches ~~(4)~~.

6. (Currently Amended) The cooling device according to ~~any one of the preceding e~~Claims 1, characterized in that said projection or projections ~~(7)~~ extend longitudinally.

7. (Currently Amended) The cooling device according to ~~any one of the~~  
~~preceding~~ claims 1, characterized in that said side wall ~~(5)~~ is entirely surrounded with a cooling  
current of air.